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BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

Application Number: 10/525,749
Filing Date: February 25, 2005
Appellant(s): KOUCHI ET AL.

Jason H. Vick
For Appellant

EXAMINER'S ANSWER

This is in response to the appeal brief filed 19 May 2010 appealing from the Office action mailed 24 July 2009.

(1) Real Party in Interest

The examiner has no comment on the statement, or lack of statement, identifying by name the real party in interest in the brief.

(2) Related Appeals and Interferences

The examiner is not aware of any related appeals, interferences, or judicial proceedings which will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

(3) Status of Claims

The statement of the status of the claims contained in the brief is correct.

(4) Status of Amendments After Final

No amendment after final has been filed.

(5) Summary of Claimed Subject Matter

The summary of claimed subject matter contained in the brief is correct.

(6) Grounds of Rejection to be Reviewed on Appeal

The appellant's statement of the grounds of rejection to be reviewed on appeal is correct.

GROUNDS OF REJECTION NOT ON REVIEW

The following grounds of rejection have not been withdrawn by the examiner, but they are not under review on appeal because they have not been presented for review in the appellant's brief. The rejection of claim 2 directed to a computer readable medium and of claim 15 directed to an embodiment of claim 14 in which biological information comprises information related to ST level of an electrocardiogram and source related information comprises information related to electrocardiogram lead as unpatentable over Schradi et al., in view of Sakaguchi et al. , and in view of Dia medical system Kabushiki "JP787" as applied to claims 1, 3, 5-8, 10-14, and 17-20 and in further view of Newlan et al. under 35 USC 103(a) is maintained as appellants have not presented any arguments regarding the rejections of claims 2 and 15.

(7) Claims Appendix

The copy of the appealed claims contained in the Appendix to the brief is correct.

(8) Evidence Relied Upon

5860918	Schradi et al.	1-1999
5807246	Sakaguchi et al.	9-1998
6806891	Manuel et al.	10-2004

Newlan et al. (18th Annual International Conference of the IEEE Engineering in Medicine and Biology Society, Amsterdam, 5.4.1 : ECG, ST-segment and Ischemia, p. 1355-1356, 1996)

Dia medical system Kabushiki Kaisha "JP787" (Japanese patent JP 51-787, 1976, cited on IDS 1/9/06)

(9) Grounds of Rejection

The following ground(s) of rejection are applicable to the appealed claims:

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 1, 3, 5-8, 10-14 and 17-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Schradi et al. (US Pat No. 5,860,918), in view of Sakaguchi et al. (US PAT No. 5,807,246), and in view of Dia medical system Kabushiki Kaisha "JP787".

The claims are drawn to a device comprising means for obtaining information, for making a determination of abnormal information, and for displaying information. In some embodiments, the display is modified with a visual alarm, thereby altering the display style. In some embodiments, the biological information is displayed in association with the source of biological information. In some embodiments, the device makes a determination of if the information exceeds or falls below a threshold. In an embodiment, subsequent biological information that is determined to be not abnormal is displayed in the original style and the previous abnormal biological information is maintained. In an embodiment, the display allows the discrimination of the cases: a case in which the current biological information is abnormal; a case in which past and

current biological information are abnormal; and case in which past biological information is abnormal while current information is normal.

Schradi et al. shows a biological information trend display device. Schradi et al. shows that the device has a means for obtaining biological data (col. 2, line 37-58). Schradi et al. shows the device has means for determining if the obtained biological information is abnormal (col. 2, line 59-65). Schradi et al. shows a processor (col. 5, line 49). Schradi et al. shows the device has means for displaying a time-series trend for each of a plurality of biological information (col. 3, line 26-32). Schradi et al. shows that a graph displaying area and a data type displaying area are provided and a plurality of biological information are displayed in the same graph area (fig. 2). Schradi et al. also shows that displayed with the time series is information related to the source of biological information (fig 2). Schradi et al. shows information determined as abnormal is displayed in association with information related to the source of information (col. 10, line 26-27). Schradi et al. shows text related to the source of the biological information is displayed in the data display area and in the same style (col. 9, line 47-52). Schradi et al. shows the different sources have different behaviors (fig. 2). Schradi et al. suggests in figure 3 that the displaying means displays a source for abnormal biological information but does not display the source of information that is not abnormal (col. 9, line 15-32). Schradi et al. shows that the determination comprises a determining if the information exceeds or falls below a defined level (col. 6, line 1-6). Schradi et al, shows in figures 2 and 3, the values of events that have crossed a threshold value. What is

displayed in the figure suggests a higher threshold in an upper area and lower threshold in a lower region.

Schradi et al. does not explicitly show that the trend display style is changed for biological information that is determined as abnormal.

Sakaguchi et al. shows a display device. Sakaguchi et al. shows the display device has a CPU (processor) that executes the algorithm of figure 4. Sakaguchi et al. shows that the display style changes for biological information determined as abnormal, wherein the change in style is color and abnormal and normal have different styles. (col. 3, line 15-17). In addition, Sakaguchi et al. shows that all normal data has the same style, i.e. not flashing (col. 3, line 15-17). Sakaguchi et al. suggests data can be displayed on a multicolor LCD display can be made more complex by increasing the color intensity, or changing the flashing cycles, so that when the degree of deviation from normal range is large, this can be distinguished by changing the flashing cycles so that flashing occurs in shorter cycles, reading on different display styles distinguishing normal from abnormal (col. 3, line 42-46). Sakaguchi et al. et al. shows the advantage of changing display styles is that it reduces ambiguity and makes it easier to read (col. 3, line 29 and col. 4, line 14-15).

Schradi et al., and in view of Sakaguchi et al. do not show a plurality of biological information that is overlapped or embodiments where subsequent biological information that is determined not abnormal is displayed in the original style and the previous abnormal biological information is maintained.

JP787 shows a trend display device for biological information. Figure 2 shows that the plurality of biological information is overlapped. JP787 shows the device has information obtaining means, an abnormal information determination means, and a display means (p. 1). JP787 shows that the display means displays information determined to be abnormal and identifies its source (p. 6, para. 2). JP787 shows the determination of an abnormal event causes the display to present the information (p. 6, para. 2). JP787 shows the trend style change corresponds to a change in color of the trend information (p. 5-6). JP787 shows that each source of information is coded by color (p. 5). JP787 shows the color coded source undergoes a color change when the source exceeds or drops below a threshold (p. 5 and exemplified on p. 6). JP787 shows that subsequent and current biological information are displayed, reading on subsequent biological information that is determined not abnormal is displayed in the original style and the previous abnormal biological information is maintained, in which the styles of normal information and abnormal information are different (p. 5-6 and figure 2). JP787 shows that the display means allows discriminating between cases where current information is abnormal; past and current information are abnormal and past information is abnormal but current information is not abnormal (p.7-8). JP787 shows that changing the display style to indicate the source of the abnormal information has the advantages of focusing attention on the abnormal data and leads to the administration of immediate, proper treatment (p. 3 and p. 8).

It would have been obvious to one of ordinary skill at the time of invention to modify the display device of Schradi et al. with the display formatting of Sakaguchi et al.

because Sakaguchi et al. shows the advantage of changing display styles is that it reduces ambiguity and makes it easier to read. It would have been further obvious to one of ordinary skill at the time of invention to modify the display device of Schradi et al., in view of Sakaguchi et al. with the previous abnormal biological information and subsequent normal biological information and discrimination of cases of JP787 because JP787 shows that indicating the source of the abnormal information by changing display styles has the advantages of focusing attention on the abnormal data and leads to the administration of immediate, proper treatment.

Claim 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over Schradi et al., in view of Sakaguchi et al., and in view of Dia medical system Kabushiki Kaisha "JP787" as applied to claims 1, 3, 5-8, 10-14 and 17-20 above, and further in view of Manuel et al. (US Pat No. 8,806,891).

Claim 9 is directed to an embodiment in which the display area for displaying information related to the source of biological information has an inner indication area and an outer indication area and wherein the outer area indicates abnormal biological information the past and the inner area indicate current abnormal biological information.

Schradi et al., in view of Sakaguchi et al., and in view of Dia medical system Kabushiki Kaisha "JP787" as applied to claims 1, 3, 5-8, 10-14 and 17-20 above shows a display device where abnormal biological information is displayed in a display style different from normal biological information discriminates cases.

Schradi et al., in view of Sakaguchi et al., and in view of Dia medical system Kabushiki Kaisha "JP787" as applied to claims 1, 3, 5-8, 10-14 and 17-20 above does not show a display area having an inner and outer area.

Manuel et al. is directed to a graphical display for conveying status information. Manuel et al. shows a display area of an indicator having an inner and outer area that allows the discrimination of cases (col. 3, line 43-44). Manuel et al. shows that the inner area changes color when a request has been processed (col. 3, line 47-48) Manuel et al. shows that outer area changes color when a request is made (col. 3, line 44-47). The indicator of Manuel et al. shows a change is status in a temporal frame of reference. For example, the information of the outer area in the indicator of Manuel et al. shows the change in status when a request is made, similarly the instantly claimed outer area indicates a changed status in a past event, i.e. abnormal event in the past. Thus the indicator of Manuel et al. is viewed to read on the limitations of claim 9 requiring an indicator having inner and outer areas. Manuel et al. shows the advantage of the graphical indicator is it allows one to have instant knowledge of the status of a process (col. 9, line 17-20).

It would have been obvious to one of ordinary skill in the art to modify the display device where abnormal biological information is displayed in a display style different from normal biological information and discriminates cases as made obvious by Schradi et al., in view of Sakaguchi et al., and in view of Dia medical system Kabushiki Kaisha "JP787" as applied to claims 1, 3, 5-8, 10-14 and 17-20 above, with the indicator display

area of Manuel et al. because Manuel et al. shows the advantage of the graphical indicator is it allows one to have instant knowledge of the status of a process.

The following rejection was not presented in the grounds for appeal in the Appeal Brief. However, as appellants did include arguments regarding claim 15, the rejection is included herein for completeness.

Claims 2 and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Schradi et al., in view of Sakaguchi et al., and in view of Dia medical system Kabushiki Kaisha "JP787" as applied to claims 1,3, 5-8, 10-14 and 17-20 above, and further in view of Nelwan et al.

Claim 2 is directed to a computer readable medium comprising a stored program for a display device. Claim 15 is directed to biological information that is related to ST level.

Schradi et al., in view of Sakaguchi et al., and in view of Dia medical system Kabushiki Kaisha "JP787" as applied to claims 1, 3, 5-8, 10-14 and 17-20 above shows a display device where abnormal biological information is displayed in a display style different from normal biological information.

Schradi et al., in view of Sakaguchi et al., and in view of Dia medical system Kabushiki Kaisha "JP787" as applied to claims 1, 3, 5-8, 10-14 and 17-20 above do not explicitly show a computer readable medium.

Nelwan et al. shows a trend display system and device for obtaining biological information determining and displaying information related to ST level. The device

comprises a storage review unit having a display means, a means for determining abnormal data, and means for obtaining biological information (p. 1355, col. 2, para. 2). Nelwan et al. shows an abnormal information determining means to provide clinical alarms upon abnormal information as a result from, for example, measurement lead failure (p. 1355, col. 2, para. 3). Nelwan et al. shows a computer readable medium (p. 1355, col. 1, para. 3). Nelwan et al. shows that the multiple information sources can be displayed (p. 1356, col. 1, para. 6). Nelwan et al. shows that by marking time points that a change in the display style is affected (p. 1356, col. 1, para. 5). Nelwan et al. shows that multiple information is in the same style (p. 1356, col. 1, para. 6). Nelwan et al. shows that information shows different behaviors (p. 1356, col. 1, para. 6). Nelwan et al. shows display means presents information related to ST level trends and source related lead information (p. 1355, col. 2, para. 3 and p. 1356, col. 2, para. 2-3).

It would have been obvious to one of ordinary skill in the art at the time of inevtion to modify the display device where abnormal biological information is displayed in a display style different from normal biological information of Schradi et al., in view of Sakaguchi et al., and in view of Dia medical system Kabushiki Kaisha "JP787" as applied to claims 1,3, 5-8, 10-14 and 17-20 above with the computer readable medium and ST level monitoring of Newlan et al. because the substitution of one known element for another would have yielded predictable results.

(10) Response to Argument

Claims 1, 3, 5-8, 10-14 and 17-20 stand rejected under 35 U.S.C. 103(a) as being unpatentable over Schradi et al. (US Pat No. 5,860,918), in view of Sakaguchi et al. (US PAT No. 5,807,246), and in view of Dia medical system Kabushiki Kaisha "JP787". Appellants argue Schradi et al. fails to disclose or suggest information determined as abnormal being displayed with information related to the source of information. The argument is not persuasive. Schradi et al. disclose at col. 6, line 63-67, the review window contains three channels, one for each physiological parameter monitored: bradycardia channel has a range from 40-120 bpm, a measurement of heart rate; Desaturation channel has a range from 70% up to 90%; and Apnea channel has a range from 0 up to 40 sec, a measurement of respiration. At col. 7 line, 1-3, Schradi et al. further disclose that all channels contain reserved areas for values that exceed the minimum or maximum of their ranges. Schradi et al. also discloses at col. 7, line 4-12 that events are denoted by a vertical bar whose length is dependent on the extent to which the parameter has exceeded the parameter associate threshold. Consulting figures 3a and 3b as reproduced in the appellant's arguments and in Schradi et al. demonstrating output of the Schradi et al. display device, the vertical bars in the figures show information determined to be abnormal that is displayed with information related to the source of the information, the terms BRADY[bpm], DESAT[%], and APNEA DURAT'N[sec]. Thus, the display of Schradi et al. shows information determined as abnormal being displayed with information related to the source of information. In addition, the claims are directed to an apparatus, whereas appellant's arguments are

directed to a method step. Schradi et al. shows a display device with means for displaying time -series trends. The limitation of claim 1 recited as "wherein the displaying means further **displays** biological information determined to as the abnormal biological information in association with information relating to the source of the biological information" (emphasis added by the examiner) is interpreted as an intended use, not as a method step. Nonetheless, as argued above, Schradi et al. discloses the recited limitations.

Appellants argue that none of the references relied on disclose or suggest the time-series trends for the plurality of biological information are overlapped and displayed in the same graph displaying area. The argument is not persuasive. JP787 shows in figure 2 time-series trends for a plurality of biological information are overlapped and displayed in the same graph displaying area.

Appellants argue that none of the references relied on disclose or suggest text indicating the source of the biological information is displayed on the data type displaying area in the same displaying style as the time-series trend for biological information which is determined as the abnormal biological information. The argument is not persuasive. Sakaguchi et al. shows in col. 3, line 15-17, measurement values are displayed by steady illumination in green and if the values are not within normal range (i.e. the values are abnormal), they are displayed by flashing red. Sakaguchi et al. disclose the display colors need not be only 2 colors , but may be 3 colors or multiple displays by means of the combination of 3 primary colors (col. 3, line 39-41). Sakaguchi et al. suggests increasing the complexity of the display by increasing the color intensity,

changing flashing cycles and including the display of letters, symbols and messages (col. 3, line 41-50). Sakaguchi et al. suggest the combination of display color and illumination mode, different types of data can be displayed in different modes, ambiguity in the display is eliminated, the significance and contents of the display can easily be confirmed by simple observation, and the ease of use of the medical diagnosis and treatment system is enhanced (col. 4, line 12-18). Schradi et al. shows the abnormal events may be linked with a style change in the information describing the source of the biological data by describing that "information concerning the trigger event is always shown in inverse video" (col. 9, line 17-18) and describing that an alarm limit is the value at which a medical monitoring device triggers an optical and/or acoustical alarm so as to inform a users of the fact that an abnormal or dangerous condition of a patient exists (col. 10, line 26-29). JP787 shows at page 7, line 15-17, that in the event that the data exceeds or drops below preset limits , the comparator can generate an alarm signal to be displayed on the display section. Taking the combined teachings of Schradi et al., Sakaguchi et al., and JP787 together, the examiner maintains that it would have been obvious to one of ordinary skill to link the style of display of the data trend line for a specific data source with text describing the data source where the motivation to do so is as provided by Sakaguchi et al. to eliminate the ambiguity in the display, to easily confirm the significance and contents of the display by simple observation, and enhance the ease of use of the medical diagnosis and treatment system.

Regarding claim 6, appellants argue the art fails to suggest displaying at an upper portion of the display device an indicator text when the biological data exceeds an

upper threshold and displaying at a lower portion of the display device an indicator text when the biological data falls below a low threshold. The argument is not persuasive. The claims are directed to a system however, appellant is arguing limitations of a method. The display devices described by Schradi et al. and Sakaguchi et al. are capable of displaying indicator texts when the biological exceeds or fall below predetermined thresholds. Sakaguchi et al. shows upper and lower limit value settings are applied to identify values within the limits as normal and those values outside the limit values as abnormal. As indicated above, Sakaguchi et al. teaches that a display device which is able to display letter symbols other than numbers, wherein display of various messages, etc. is possible (col. 3, line 45-50). Sakaguchi et al. suggest the combination of display color and illumination mode, different types of data can be displayed in different modes, ambiguity in the display is eliminated, the significance and contents of the display can easily be confirmed by simple observation, and the ease of use of the medical diagnosis and treatment system is enhanced (col. 4, line 12-18). Thus, the examiner maintains that it would have been obvious to one of ordinary skill in the art to modify the display devices of Schradi et al., in view of Sakaguchi et al., in view of JP787 to display upper limit threshold alarms at an upper portion of the device and lower limit thresholds alarms at a lower portion of the device because design incentives or other market forces could have prompted one of ordinary skill in the art to vary the prior art in a predictable manner to result in the claimed invention. In addition, one would have been motivated by Sakaguchi et al. who suggest the combination of display color and illumination mode can be modified such that different types of data can be

displayed in different modes thereby eliminating ambiguity in the display, easily confirming the significance and contents of the display and enhancing the ease of use of the medical diagnosis and treatment system.

Regarding claim 7, appellants argue that the cited references fail to show that data that is no longer considered abnormal reverts to the original style. The argument is not persuasive because JP787 shows that the part of the data that is abnormal is shown in another color (p. 7, line 29-31).

Regarding claim 8, appellants argue that the cited references fail to shows the ability to discriminate between cases with current abnormal data and past abnormal data but current normal data. The argument is not persuasive because the display device of Schradi et al. shows in figure 2, normal and abnormal display in a way to allow one to discern between the cases of currently abnormal and currently normal and abnormal in the past. As described by Schradi et al. at col. 7, line 4- col. 8, line 63, a vertical bar (element 210) indicates an abnormal data event, the indication of a selected abnormal event (element 228), and the current biological information at the upper portion of the device. Thus the display device of Schradi et al. allows for the discrimination between past and current abnormal events.

Regarding claim 10, appellants argue the references fail to show a pairing between the data and an indicator of the source of the data. The argument is not persuasive because Schradi et al. shows the pairing of a data trend with an indicator of the source of the data in figure 2 elements 200, 202, and 204.

Regarding claim 11, appellants argue the cited references fail to show the data is in the same style for all data that is normal. The argument is not persuasive. Schradi et al. shows in figure 2 that the data considered as normal is presented in the same style which is linear. Further, JP787 shows that in figure 2, data considered normal is presented in the same style for all normal data.

Regarding claims 12 and 13, appellants argue that the cited references fail to shows the trend changes color. The argument is not persuasive because JP787 shows the trend line changes color (29-31).

Regarding claim 14, appellants argue the cited references fail to show different sources have different behaviors. The argument is not persuasive. Schradi et al. shows that the different sources have distinct behaviors (figure 2 comparing brady trend with desat trend).

Regarding claim 15, appellants argue the cited references fail to show information related to ST level. The argument is not persuasive. The rejection of claim 15 has not been presented as a ground of rejection under review as set forth in section 6. However in the interest of completeness, it is noted that Nelwan et al. shows the data acquisition process has been developed to detect and process certain events (for example ST-level changes) in the incoming data. Further, the specification discloses the ST level of an electrocardiogram is well known in the prior art.

Regarding claims 17 and 20, appellants argue that similar to claim 1 the references cited fail to show the claimed limitations. In particular, appellant argues that the references cited fail to disclose or suggest text indicating the source of the biological

information is displayed on the data type displaying area in the same displaying style as the time-series trend for biological information which is determined as the abnormal biological information. The argument is not persuasive. Sakaguchi et al. shows in col. 3, line 15-17, measurement values are displayed by steady illumination in green and if the are not within normal range (abnormal) they are displayed by flashing red. Sakaguchi et al. disclose the display colors need not be only 2 colors , but may be 3 colors or multiple display by means of the combination of 3 primary colors (col. 3, line 39-41). Sakaguchi et al. suggests increasing the complexity of the display by increasing the color intensity, changing flashing cycles, and including the display of letters, symbols, and messages (col. 3, line 41-50). Sakaguchi et al. suggest the combination of display color and illumination mode, different types of data can be displayed in different modes, ambiguity in the display is eliminated, the significance and contents of the display can easily be confirmed by simple observation, and the ease of use of the medical diagnosis and treatment system is enhanced (col. 4, line 12-18). Schradi et al. shows the abnormal events may be linked with a style change in the information describing the source of the biological data by describing that “information concerning the trigger event is always shown in inverse video” (col. 9, line 17-18) and describing that an alarm limit is the value at which a medical monitoring device triggers an optical and/or acoustical alarm so as to inform a users of the fact that an abnormal or dangerous condition of a patient exists (col. 10, line 26-29). JP787 shows at page 7, line 15-17, that in the event that the data exceeds or drops below preset limits , the comparator can generate an alarm signal to be displayed on the display section. Taking the combined teachings of Schradi

et al., Sakaguchi et al., and JP787 together. It would have been obvious to one of ordinary skill to link the style of display of the data trend line for a specific data source with text describing the data source where the motivation to do so is as provided by Sakaguchi et al. to eliminate the ambiguity in the display, to easily confirm the significance and contents of the display by simple observation, and enhance the ease of use of the medical diagnosis and treatment system.

Regarding claim 18 and 19, appellants argue in particular that the cited references fail to show a CPU. The argument is not persuasive. Sakaguchi et al. shows a CPU (col. 2 line 59- col. 3, line 4). Further, JP787 shows a CPU or comparator that compares obtained data with a limit value to identify abnormal data which is then indicated on a display device by a change in trend display style (p. 7 line 3-32).

Claim 9 stands rejected as unpatentable over Schradi et al., in view of Sakaguchi et al., and in view of Dia medical system Kabushiki Kaisha “JP787” as applied to claims 1, 3, 5-8, 10-14 and 17-20 above, and further in view of Manuel et al. (US Pat No. 8,806,891) under 35 U.S.C. 103(a). Appellant argues that Manuel et al. is non-analogous art. In response to applicant's argument that Manuel et al. is nonanalogous art, it has been held that a prior art reference must either be in the field of applicant’s endeavor or, if not, then be reasonably pertinent to the particular problem with which the applicant was concerned, in order to be relied upon as a basis for rejection of the claimed invention. See *In re Oetiker*, 977 F.2d 1443, 24 USPQ2d 1443 (Fed. Cir. 1992). In this case, claim 9 is directed to a display indicator having an inner and outer

indication area. Manuel et al. is directed to a display device to indicate status of received data related to booking. The cited art of Manuel et al., Schradi et al., Sakaguchi et al. and JP787 are all directed to process control. In the case of Schradi et al., Sakaguchi et al. and JP787, process is medical treatment of an individual whereas in the case of Manuel et al. it is resource booking. An important aspect of process control is conveying information relevant to the processes being managed. Manuel et al. shows a display indicator having an inner and outer indication area. Manuel et al. shows a single indicator can indicates states for each resource or data source (col. 3, line 40-52). Manuel et al. shows the dynamic display automatically provides immediate change of status allowing the operator or user to have instant knowledge of the status of his automatic batch operation and furthermore the ability to use the toggle button and rearrange the priorities as determined by any immediate needs (col. 9, line 14-20). Regarding appellants argument that no teaching in Manuel et al. can be correlated with abnormal biological information. The argument is not persuasive. Manuel et al. suggests that booking status is employed to identify equipment failure (col. 9, line 6-13). Similarly, abnormal biological data can be viewed as equipment failure, for example, in Scharadi et al. the indication of a bradycardia event is an indication in the failure of the heart to operate normally. Manuel et al. shows an indicator with an outer indication area and an inner indication area. The claim is directed to a device. Appellants argument regarding displaying the outer indication area in association with abnormal biological information are directed to method steps. The indicators of Manuel et al. are capable of conveying information. Finally, design incentives or other market forces could have prompted one

of ordinary skill in the art to vary Manuel et al. in a predictable manner to result in the claimed invention.

(11) Related Proceeding(s) Appendix

No decision rendered by a court or the Board is identified by the examiner in the Related Appeals and Interferences section of this examiner's answer.

For the above reasons, it is believed that the rejections should be sustained.

Respectfully submitted,

/KARLHEINZ R SKOWRONEK/

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2 July 2010